**Sciences National Coordinators’ Newsletter Term 3**

**This term we are highlighting key assessment information from NZQA and MoE**

**Secqual (S2012/014 - 31 Jul 2012) Changes to the list of approved subjects for UE**

* **Earth and Space Science has been added for 2013.**
* Science will also remain on the list of subjects to enable delivery of non-specialist courses using any of the Biology, Chemistry, Earth and Space Science, or Physics Level 3 achievement standards.

Follow up details on <http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/secqual/changes-to-the-list-of-approved-subjects-for-university-entrance/>

**Science initiatives and further extension of expiry date of eight specific Level 1 science unit standards (A2012/012 - 02 Jul 2012)**

**Overview of Science initiatives**   
The Ministry of Education has recently initiated a number of Science initiatives in response to the Gluckman report, Looking Ahead: Science Education for the Twenty-First Century (2011), to examine raising student achievement in Science (years 1-13) through focussing on five project areas. These initiatives will focus on:

1. Curriculum support for Science – Improving curriculum resources, both in print and online. These resources currently support teachers and students in the Nature of Science strand, and literacy and numeracy teaching within the Science learning area.
2. Science community engagement – Developing best practice and ways in which schools engage with the wider science community, particularly at secondary level, to make learning more relevant. It will also explore what works to engage the science community and why it works.
3. E-Learning in Science – Using technologies to support student and teacher engagement and learning, particularly in the Nature of Science strand.
4. Building teacher capability through ongoing teacher professional learning and development (PLD).
5. Examining the flexibility of the curriculum and the qualifications framework, especially at secondary level, to support good programme design.

**Level 1 Science standards’ alignment with the New Zealand Curriculum**   
The MOE, in association with NZQA, has aligned the achievement standards with the outcomes from the Science learning area in The New Zealand Curriculum (NZC). This is to ensure there are standards that can be used to assess against outcomes at levels 6-8 of the NZC. Some Level 1 Science unit standards were due to expire in December 2012 because they were derived from levels 4 and 5 of the previous curriculum (the 189XX series). The aligned achievement standards derive from relevant Science Level 6 outcomes from the NZC.   
**Feedback**   
Feedback from the secondary sector indicates that some schools are finding it difficult to design Science programmes derived from the NZC for year 11 students who are not yet working at NZC Level 6. Support from the MOE initiatives described above will help schools with this. Feedback also indicates that the retention of a small number of Level 1 Science unit standards would provide motivation for students to continue studying Science. This would be seen as an **interim measure** as such programmes would not necessarily provide a pathway to a level 2 qualification. Schools that continue to use these unit standards would need to give priority to developing new and meaningful pathways in Science.

**Extension of expiry date of eight specific Level 1 Science unit standards**   
Accordingly, it has been decided to retain eight (8) specific Level 1 Science unit standards for a further two years. **NZQA will revise unit standards 18969, 18973, 18974, 18977, 18982, 18986, 18989, 21611** **and extend their expiry date to 31 December 2014.** The revision will not impact on the outcome of these standards but will ensure the standards remain fit-for-purpose in the interim. The new versions of the revised standards will be available by mid-November 2012. The last date of assessment against the current version of these standards will be 31 December 2012. **Schools** **must** **assess against the new versions of these standards in 2013-14.** NZQA’s website will be updated accordingly. Assessment using these standards will not be able to take place after 31 December 2014 (see [SecQual S2011/034](http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/secqual/standards-align-exp-stand-rep-results/)). This extension does not apply to the other twelve Level 1 Science unit standards designated as expiring on 31 December 2012. The MoE and NZQA expect to continue to see a reduction in the numbers of students enrolling for these standards. The MoE will also continue to work with Science departments to support programme design.

<http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/assessment-matters/science-initiatives/>

**What can schools do to to address the needs of the learners currently being assessed through these standards?** It would be useful for learning programmes to be trialled that incorporate some of the Level 1 Sciences Achievement Standards. Some approaches to consider could be

* Developing a Level 1 Science programme using Achievement Standards and providing evidence towards Literacy and Numeracy standards over a two year period
* Using the NZASE adapted resources for selected Level 1 science achievement standards
* Consider assessing the one achievement objective from New Zealand Curriculum using different achievement standards for different students. Eg Living World AO life processes relate key structural features and functions to the life processes of plants animals and microorganisms could be assessed using Science 1.10, Bio 1.1, Bio 1.2, or Bio 1.5; AgHort 1.6, 1.7, 1.9, or 1.10
* Using a Nature of Science focus to develop a Level 1 programme that leads to assessment using the Science internal assessment tasks (which are designed with a NoS focus). In this case the need is for the learning to use an appropriate science context addressing the interests of your students and follow up with an assessment task written especially for them.

**How the Science Facilitators are supporting these learners**

Regional facilitators have been working with clusters of schools on developing programmes and teaching approaches to assist students who would previously have been assessed using the 189… series Unit Standards. Incorporating a consistent focus on building the literacy component of science within the programme has led to some great success stories for these students, with some even achieving M or E in NCEA Science internal assessment tasks.

In addition, all workshops run by Science Facilitators include a focus on developing different aspects of literacy within teaching and learning programmes to address needs of science for these students.

**If you are interested in following up on Professional development on programme design for these Level 1 students contact your Regional Facilitator or National Coordinators.**

For details of the workshops available in Term 4 for all the sciences go to: <http://nzcurriculum.tki.org.nz/Ministry-curriculum-guides/Secondary-middle-leaders/Professional-learning-and-development/Workshops-and-clusters>

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